

## LTE Cat.1 / 2G / 3G, LTE Cat.M and Cat.NB smart metering modem for Itron® electricity meters

This cellular modem has been specifically designed for use with specific Itron® electricity meters.

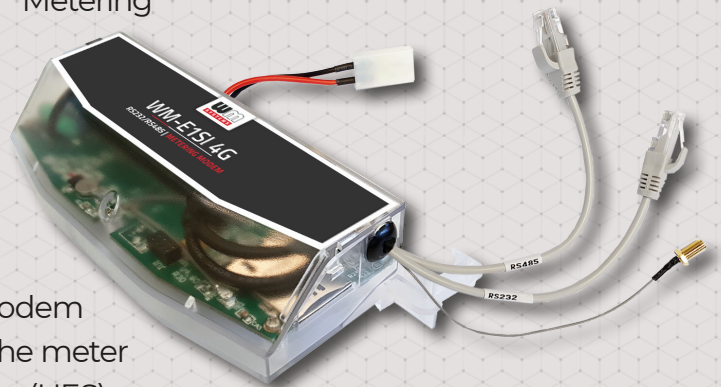
The modem has RS232 and RS485 connection capabilities, and provides transparent data link to the HES, through the 2G / 3G / 4G LTE and the LTE Cat.M, Cat.NB wireless network.

Our modem forms part of the AMI (Advanced Metering Infrastructure) of the utility company.

The modem is suitable for remote readout of electricity meter registers and modification of configuration.

The readout takes place in „PULL” mode, the modem provides transparent communication between the meter and the electricity provider’s measurement center (HES).

The modem can be installed under the terminal cover of the meter sealed by the service provider. The modem can be configured using the WM-E Term® application.



### MAIN FEATURES

- Module order options:
  - LTE Cat.1 module with 2G or 3G/2G „fallback” feature
  - LTE Cat.M / Cat.NB module with 2G „fallback” feature option
- It can be installed into the meter enclosure and fastened securely
- Design & connectivity satisfy meter manufacturer standards
- Sealed and separated from the meter
- Power supply from the meter (AC power)
- Compatible with Itron® SL7000 , EM600 (E620), ACE6000, ACE8000 electricity meters
- RS232 connection (RJ45)
- RS485 connection (RJ45)
- Optional surge protection from 4kV up to 12kV
- „Pull” mode
- Transparent data sending (IEC 62056-21 protocol)
- Supercapacitor option (LastGASP message from power outage)
- Remote & safe firmware updates
- WM-E Term® configuration software (mass modem configuration and firmware updates)
- Device Manager® software (order option)

### APPLICATION

- UTILITY COMPANIES
- SMART METERING
- INDUSTRIAL MEASUREMENT



## DESIGN AND OUTFIT

- The modem is installable inside the meter enclosure
- RS232 and RS485 interface connections (RJ45)
- AC power from the meter
- SMA antenna cable

## COMPATIBILITY

- Itron® SL7000, EM600 (E620), ACE6000 and ACE8000 electricity meters

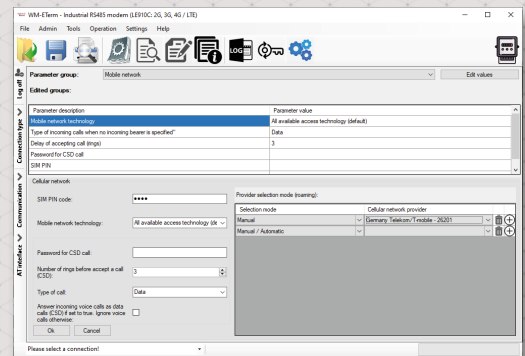
## OPERATION

- „Pull” data sending
- Transparent data transmission



## ACCESSORIES

- RJ45 cable (for connecting Itron® meters) - order option
- Converter cable (for connecting the Landis+Gyr® meters) - order option
- External SMA antenna (50 Ohm) - order option
- WM-E Term® software (mass FW updates, actualization of settings)
- You can manage the device by Device Manager® software (order option)



WM-E1SI*		LTE Cat.1	LTE Cat.M / Cat.NB			
<b>Power Voltage / Nominal Frequency</b>	- Input Voltage: 8...28V DC					
<b>Power Consumption</b>	- Stand-by: 0.7W - Average: 2.9W - Max. SW (peak)					
<b>Communication module</b>	<b>Cellular technology</b>	- LTE Cat.1 - 3G/2G "fallback"	- LTE Cat.1 - 2G "fallback"	- LTE Cat.M / Cat.NB	- LTE Cat.M / Cat.NB	
	<b>Internet module</b>	- Telit LE910CI-EUX	- Telit LE910RI-EU	- Telit ME910CI-EI	- Telit ME910CI-W1	
	<b>Bands / Frequency (MHz)</b>	- LTE-FDD: B1(2100) / B3(1800) / B7(2600) / B8(900) / B20(800) / B28A(700) - 3G: B1(2100) / B3(1800) / B8(900) - 2G: B3(1800) / B8(900)	- LTE-FDD: B1(2100) / B3(1800) / B7(2600) / B8(900) / B20(800) / B28(700) - 2G: B3(1800) / B8(900)	- LTE M1 & NB: B3(1800) / B8(900) / B20(800)	- LTE: B1(2100) / B2(1900) / B3(1800) / B4(1700) / B5(850) / B8(900) / B12(700) / B13(700) / B14(700) / B18(800) / B19(800) / B20(800) / B25(1900) / B26(850) / B27(800) / B28(700) / B66(1700) / B71(600) / B85(700) - 2G: B2(1900) / B3(1800) / B5(850) / B8(900)	- LTE: B1(2100) / B2(1900) / B3(1800) / B4(1700) / B5(850) / B8(900) / B12(700) / B13(700) / B14(700) / B18(800) / B19(800) / B20(800) / B25(1900) / B26(850) / B27(800) / B28(700) / B66(1700) / B71(600) / B85(700) - 2G: B2(1900) / B3(1800) / B5(850) / B8(900)
	<b>Speed (DL/UL)</b>	- LTE Cat.1: 10/5 Mbps - HSPA+: 42 Mbps - GPRS: 80/40 kbps	- LTE Cat.1: 10/5 Mbps - GPRS: 80/40 kbps	- LTE M1 UL/DL: 375/200 kbps - LTE NB1 UL/DL: 20-250/250 kbps	- LTE Cat.M: 1 Mbps/588 kbps - LTE Cat.NB: 160/120 kbps	- LTE Cat.M: 1 Mbps/588 kbps - LTE Cat.NB: 160/120 kbps - 2G (GPRS): 210/264 kbps
	<b>SIM card slot</b>	- mini SIM card (2FF type, push-insert SIM)				
<b>Antenna connector</b>	- External antenna connector (SMA, 50 Ohm)					
<b>Compatibility</b>	<b>Meter type</b>	- Itron® SL7000, EM600 (E620), ACE6000, ACE8000 electricity meters				
<b>Interfaces</b>	<b>Connectors (order options)</b>	- RS232 connector (RJ45) - RS485 connector (RJ45) - Power supplied by meter (AC power, pigtail connector or ferrule connector / 2 pins)				
	<b>Protocol / Transmitting</b>	- EN 62056-21, Mode C - 300-115200 baud serial data speed - „Pull”, transparent data sending - CSData [2G] call - optional				
<b>Operation</b>	<b>Notification</b>	- Immediate alarm notification (LastGASP - power loss)				
	<b>Configuration</b>	- WM-E Term® tool (local/remote single or mass parameter configuration, firmware update) - Device Manager software (order option)				
	<b>Indication</b>	- 3 status LEDs				
<b>RTC Backup Battery*</b>	<b>Supercapacitor</b>	- Power outage = 1 hour - After 1 hour the RTC will be supplied from the meter - Supercapacitor (for Last GASP SMS notification from power outages) - order option				
	<b>Surge withstand</b>	- 4kV (peak), 1.2/50µs, line to line 2Ω - 6kV (peak), 1.2/50µs, line to earth (ground) 2Ω - 12kV, Rsource = 40Ω (1.2/50µs, impulse 1 min) - Dielectric test: 4kV, 1 min, 50Hz				
<b>EMC compatibility</b>	<b>Temperature</b>	- Operating: from -40°C to +70°C at 95% rel.humidity - Storage: from -40°C to +80°C at 95% rel.humidity				
	<b>Enclosure</b>	- IP51 plastic transparent casing, mountable into the meter enclosure				
	<b>Dimension / Weight</b>	- 162 x 66 x 30mm (without antenna and cables) - 130gr				



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